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10/729,365

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10/06/2006

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EXAMINER

RADTKE, MARK A

ART UNIT

PAPER NUMBER

2165

DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/729,365 | BELOUSSOV ET AL. | |
| | Examiner | Art Unit | |
| | Mark A. X Radtke | 2165 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to communications filed on 17 July 2006, claim(s) 1 and 20-22 is/are amended per Applicant's request. Therefore, claims 1-40 are presently pending in the application, of which, claims 1 and 20-22 are presented in independent form.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The word "private file" in the amended portion of the independent claims has no well-known meaning in the art of computer programming. A private file could possibly refer to an encrypted file, a hidden file, a file that only one user has permission to access, or a file that is specific to a single instance of the virtual server. Each of these interpretations would lead one of ordinary skill in the art to a different construction of the invention and could produce an effect that would render the invention inoperable. For the purposes of examination, the final interpretation (a file specific to an instance of a virtual server) will be used, in light of the specification.

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4. Dependent claims are rejected because they depend from rejected claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-11, 16-33 and 38-40 are rejected under 35 U.S.C. 103(a) as being anticipated by Wilde (U.S. Patent 5,991,753) in view of Menage (U.S. Patent 6,618,736).

As to claim 1, Wilde teaches a method of accessing a shareable computer file (see Abstract), comprising:

receiving a request to access the shareable computer file (see column 2, lines 55-56, where "receiving" is read on "intercepting");

retrieving a file ID based on a stub file corresponding to the shareable computer file (see column 7, lines 6-8, where "file ID" is read on "references the migrated file");

copying the shareable computer file to the stub file if a user attempts to modify the shareable computer file, wherein any modifications are made to the copy (see column 7, lines 53-56);

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accessing, based on the file ID, the modified copy if modifications have been made (see column 7, lines 58-59 and lines 61-63, where "file ID" is read on bitfile ID"); and

accessing, based on the file ID, the shareable computer file if modifications have not been made (see column 7, lines 53-56 and figure 8, step 120).

Wilde does not explicitly teach wherein the file ID references the stub file, and wherein the stub file is a private file.

Menage teaches wherein the file ID references the stub file (see column 9, lines 36-47 and see figure 6, Usage Map 306), and wherein the stub file is a private file (see column 9, lines 54-65, "private storage units").

Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time the invention was made to have modified Wilde by the teaching of Menage because "other methods of identifying a migrated file may be used" (see Wilde, column 7, lines 3-4).

As to claim 2, Wilde, as modified, teaches further comprising creating a database that includes information for deriving corresponding files names for a plurality of shareable computer files (see column 11, lines 45-54).

As to claims 3 and 27, Wilde, as modified, teaches further comprising retrieving a file name from the database, wherein the file name corresponds to the file ID (see column 11, line 66 – column 12, line 1).

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As to claims 4 and 28, Wilde, as modified, teaches wherein the file name is derived based on the file ID (see column 11, line 66 – column 12, line 1).

As to claims 5 and 29, Wilde, as modified, teaches further comprising creating a file tree for the shareable computer files (see column 12, lines 62-64).

As to claims 6 and 31, Wilde, as modified, still does not teach wherein the database is provided by the operating system for use by a Virtual Private Server.

Menage teaches wherein the database is provided by the operating system for use by a Virtual Private Server (see column 8, lines 10-14).

Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time the invention was made to have modified Wilde by the teaching of Menage because “[o]ther computers could be used [...] such as servers” (see Wilde, column 4, lines 59-60). Furthermore, Wilde’s invention can be used transparently to the operating system with any higher-level applications such as a VPS (see Wilde, column 2, line 55, “transparent to the user” and see column 2, lines 26-28).

As to claims 7 and 25, Wilde, as modified, teaches wherein the database is generated in operating system space (See column 12, lines 60-62. Since stub files can be shared, then they refer to global memory addresses, as opposed to virtual memory addresses).

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As to claims 8 and 26, Wilde, as modified, teaches wherein the operating system provides access to the database (See column 11, lines 46-48. File identifiers and inode modification times are provided by the OS).

As to claims 9 and 30, Wilde, as modified, teaches further comprising creating the stub file prior to the step of retrieving the file ID (See figure 2 and figure 8. The algorithm of figure 2 is performed before the algorithm of figure 8).

Wilde does not explicitly teach further comprising creating the file in a private area of a Virtual Private Server.

Menage teaches creating files in a private area of the Virtual Private Server (see column 2, lines 54-56).

Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time the invention was made to have modified Wilde by the teaching of Menage because “[o]ther computers could be used [...] such as servers” (see Wilde, column 4, lines 59-60). Furthermore, Wilde’s invention can be used transparently to the operating system with any higher-level applications such as a VPS (see Wilde, column 2, line 55, “transparent to the user” and see column 2, lines 26-28).

As to claims 10 and 32, Wilde, as modified, teaches wherein the modified copy of the shareable computer file includes only a portion of the shareable computer file that the user has attempted to modify (See column 7, lines 49-65. A new bitfile must be generated for a modified file. The old bitfile points to the unmodified data, so the difference between the two files is contained in the new bitfile).

As to claims 11 and 33, Wilde, as modified, teaches stub files (see figure 2).

Wilde does not explicitly teach further comprising the step of generating private areas for a plurality of Virtual Private Servers, wherein files of each Virtual Private Server corresponding to the shareable computer file are stored in a private area of a corresponding Virtual Private Server.

Menage teaches further comprising the step of generating private areas for a plurality of Virtual Private Servers, wherein files of each Virtual Private Server corresponding to the shareable computer file are stored in a private area of a corresponding Virtual Private Server (see column 2, lines 54-56).

Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time the invention was made to have modified Wilde by the teaching of Menage because “[o]ther computers could be used [...] such as servers” (see Wilde, column 4, lines 59-60). Furthermore, Wilde’s invention can be used transparently to the operating system with any higher-level applications such as a VPS (see Wilde, column 2, line 55, “transparent to the user” and see column 2, lines 26-28).

As to claims 16 and 38, Wilde, as modified, teaches wherein the stub file includes a modified copy of the shareable computer file if the shareable computer file was attempted to be modified, and wherein the stub file refers to the shareable computer file if the user has no attempted to modify the shareable computer file (see column 7, lines 49-65).

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As to claims 17, 24 and 39, Wilde, as modified, teaches wherein, if the user has not attempted to modify the shareable computer file, a read-only operation retrieves any of file contents (see figure 8, step 120), file pointer position (see column 3, lines 44-46) and file size from the shareable computer file (see column 3, lines 21-22).

As to claim 18, Wilde, as modified, teaches wherein, if the user has not attempted to modify the shareable computer file, the stub file is a zero size file (see column 12, lines 28-29, "zero length setting").

As to claims 19 and 40, Wilde, as modified, teaches further comprising retrieving file attributes relating to the shareable computer file from the stub file (see column 3, lines 33-34).

As to claim 20, Wilde teaches a system for accessing a shareable computer file (see Abstract), comprising:

For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 1 above.

As to claim 21, Wilde, as modified, teaches a computer program product for accessing a shareable computer file, the computer program product comprising a computer usable medium having computer program logic recorded thereon for controlling at least one processor (see Abstract), the computer program logic comprising:

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For the remaining steps of this claim applicant(s) is/are directed to the remarks and discussions made in claim 1 above.

As to claim 22, Wilde teaches a system for concurrent accessing of files by multiple users (see Abstract), comprising:

For the remaining steps of this claim, see Examiner's comments regarding claim 1.

As to claim 23, Wilde, as modified, teaches wherein the stub files include file attributes of corresponding shareable computer files (see column 3, lines 34-35).

7. Claims 12-15 and 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilde in view of Menage, as applied to claims 11 and 33 above, and further in view of Hay (U.S. Patent Application Publication No. 2002/0103904, Application No. 09/773,848).

As to claims 12 and 34, Wilde, as modified, still does not explicitly teach further comprising installing restrictions on the use of resources by each Virtual Private Server.

Hay teaches further comprising installing restrictions on the use of resources by each Virtual Private Server (see paragraph [0014]).

Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time the invention was made to have modified Wilde, as modified, by the teaching of Hay because "[o]ther computers could be used [...] such as servers" (see Wilde,

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column 4, lines 59-60). Furthermore, Wilde's invention can be used transparently to the operating system with any higher-level applications such as a VPS (see Wilde, column 2, line 55, "transparent to the user" and see column 2, lines 26-28).

As to claims 13 and 35, Wilde, as modified, teaches wherein the resources include disk quota and file number quota (see Hay, paragraph [0014]).

As to claim 14, Wilde, as modified, teaches wherein data of the shareable computer file, if modifications have not been made, is shared on a disk between different instances of Virtual Private Servers (see Wilde, column 8, lines 10-13).

As to claim 15, Wilde, as modified, teaches wherein data of the shareable computer file, if modifications have not been made, is shared in computer memory between different instances of Virtual Private Servers (see Wilde, column 8, lines 10-13).

8. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilde in view of Menage, as applied to claim 34 above, and further in view of Byrnes (U.S. Patent 6,832,249).

As to claim 36, Wilde, as modified, still does not explicitly teach wherein the restrictions include soft limits and hard limits.

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Byrnes teaches wherein the restrictions include soft limits and hard limits (see column 9, lines 37-38).

Therefore, it would have been obvious to one of ordinary skill in the relevant art at the time the invention was made to have modified Wilde, as modified, by the teaching of Byrnes because "virtualization may take place at a lower level, such as within a virtual disk drive" (see Menage, column 12, lines 18-19).

As to claim 37, Wilde, as modified, teaches wherein the soft limits become hard limits after a predetermined period of restriction violation (see Byrnes, column 9, lines 40-42).

Response to Arguments

9. Applicant's arguments filed on 17 July 2006 with respect to the rejected claims in view of the cited references have been fully considered but are not deemed persuasive.

In response to Applicant's argument that Wilde does not teach the limitations added in the amendment, the arguments are moot in view of the new grounds of rejection.

In response to Applicant's argument that Wilde does not teach conditionally accessing the file, the arguments have been fully considered but are not deemed

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persuasive. Although Wilde's modified and unmodified files only co-exist "for some period of time, to permit the restoration of the original stub file" (column 7, lines 64-65), they do co-exist. Applicant's argument is directed towards earlier steps in Wilde's process than the relevant portions cited on the previous Office Action. The claims do not require that the modified copy and shareable copy are both permanently stored, so it is sufficient to show that they co-exist "for some period of time" (Loc. cit). If an application attempts to access a file using the old bitfile ID, the unmodified version can be restored ("to permit the restoration of the original stub file to create a fully-accessible file", lines 64-65); this corresponds to the final step of "accessing [...] the shareable computer file". If the new bitfile ID is used, the file will be accessed normally; this corresponds to "accessing [...] the modified copy".

Additional References

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of art with respect to Unix web server virtualization in general:

| | |
|--------------|---------------------------|
| ■ | ■ |
| US 5701463 A | Malcolm; Peter Bryan |
| US 5905990 A | Inglett; Scott D. |
| US 5832527 A | Kawaguchi; Miyoko |
| US 5724578 A | Morinaga; Masanobu et al. |
| US 5706510 A | Burgoon; David A. |

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"Apache and FrontPage", by Suso Banderas, presented at ApacheCon 2001, April 5, 2001. Available online at http://suso.suso.org/docs/apache_and_frontpage/
"Modules and Configuration", available online at <http://www.apachetutor.org/dev/config>.
Last modified 5 November 2005.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications should be directed to the examiner, Mark A. Radtke. The examiner's telephone number is (571) 272-7163, and the examiner can normally be reached between 9 AM and 5 PM, Monday through Friday.

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If attempts to contact the examiner are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached at (571) 272-4146.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Customer Service at (800) 786-9199.

maxr

29 September 2006


FRANTZ COBY
PRIMARY EXAMINER